



Short report

Parricide: A forensic approach



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ABSTRACT

Parricide is the act of murdering one's father (patricide), mother (matricide) or other close relative, but usually not children (infanticide). It is a rare event and little information is available on this topic. This study aims to increase knowledge about this phenomenon, promoting the timely detection of problematic cases and avoiding fatalities. A retrospective study based on the autopsy reports of parricide victims performed by the North Services of the National Institute of Legal Medicine and Forensic Sciences of Portugal between 2003 and 2011, as well as on the judicial outcome of each case, was performed. Seven cases of parricide were found, corresponding to 1.7% of all the homicides undergoing forensic evaluation. Victims and perpetrators were typically males. The assaults occurred all at home, in the presence of witnesses, and the perpetrator remained at the scene after the crime. The main alleged reasons were untreated psychiatric illness and financial conflicts in the cases of adult parricide, and attempts to protect the mother from intimate partner violence in younger ones. The judicial outcomes ranged from acquittal for nonimputability to conviction for murder, manslaughter or involuntary manslaughter. This study was carried out on a forensic sample and it is useful to implement strategies to prevent parricide.

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1. Introduction

The term parricide applies to the homicide of one or both parents, and may include biological parents, step-parents and adoptive parents.¹ More specifically, the concept of parricide is applied to the killing of the father figure, while matricide refers to the killing of the mother figure.² The perpetrators may be adults, adolescents or children. Parricide is one of the least frequent forms of fatal domestic violence. It is a rare occurrence, accounting for fewer than 4% of all proven homicides.^{1–4} Probably because of that, there is little information on the subject, especially outside the United States of America (USA).^{2,5,6} Studies involving clinical samples are of the utmost importance for the understanding of this crime,

although their usefulness is limited, given the generally small size of the samples.⁷ Despite its rarity, this crime has gradually caught the attention of the media, scientific community and general public.

The characteristics of the victims and perpetrators, and the nature of the assault, have remained stable over the years.^{7,8} The victims of parricide are predominantly male,^{2,3,7,9,10} Caucasian and aged from 50 to 60.^{7,9} Perpetrators are predominantly Caucasian, aged 20 to 30^{7,9,11} and belong to an average socioeconomic group, with no background of crime.³ In adolescent parricides (Diem & Pizarro, 2010), there is usually a family history of continuous abuse (towards the perpetrator or other family members)^{2,3} of which physical abuse is the most common cause (46.2%), followed by sexual abuse (7.8%).² As for adult parricides, an important risk factor is mental illness, particularly schizophrenia, followed by depression¹²; within this group, few are actively involved in psychiatric treatment, and have usually stopped taking medication in the months leading up to the crime.^{3,4,9} Other risk factors described include the abuse of alcohol or other substances, either by the

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perpetrator or by the victim,^{3,9,13} a history of violence (either by the victim or by the perpetrator) and conflicts related to financial issues.^{3,14} There are also records of threats to the victim³ especially in adult parricides,⁴ and (in cases of matricide) a relationship of extreme dependency and simultaneous hostility and dominance (psychological abuse).^{4,9,12}

Studies reveal that most of these crimes occur at home in the absence of witnesses and in a large proportion the perpetrator lives with the victim.^{32,9} Results also evidenced that homicides in a family context do not tend to recurrence, because the motivation for the crime ends with the death of the parent.⁹ The most frequently-used instruments are firearms (mainly in patricides), followed by sharp instruments (mainly in matricides).^{8,15} This option may be related to the difference in physical strength between victim and perpetrator: fathers are generally stronger, and so perpetrators resort more often to firearms, while mothers, being weaker, are more often victims of sharp instruments.^{8,15}

Regarding the perpetrator's behavior after the parricide, there is no consensus. Some studies state that the perpetrators do not try to flee,³ while others claim that they do.¹⁶ However, it is unanimous that only a few commit suicide after the crime.^{4,9,16}

Fatal injuries are most commonly found in the head region, and there appears to be a relationship between the type of instrument used and the region of the body that suffers the attack.¹⁷ Defense wounds are produced when the victim tries to protect him/herself from the attack and are most commonly found on the hands and forearms.¹⁸ Like the fatal injuries, defense wounds can offer information that can help reconstruct the crime scene.¹⁸

Little information concerning judicial decisions of these cases exists¹⁶ and it is obvious that these vary depending on whether it involves an adolescent or an adult. Adolescent perpetrators are generally tried in juvenile courts and serve their sentences in specialized institutions. Although there is not yet any consensus on the matter, there has been a tendency to consider some of these cases within the sphere of domestic violence, to which the adolescent may have been exposed; as he/she may also be a victim, the parricide may in some cases be considered a form of self-defense.¹⁹ Similarly, adults with psychiatric problems are also often found nonimputable.^{3,4,16} In fact, many adult perpetrators are diagnosed as psychotic, though this is not the case of adolescent perpetrators, who are generally assumed to have been victims of abuse from an early age. Thus, one way of understanding this type of crime is to consider it as a rational way of putting an end to a situation of constant long-term abuse, that is to say, a desperate act of self-protection due to a real perception of imminent danger. It may be experienced with relief by the adolescent and the rest of the family, especially when all have been victims of violence. For these young people, killing may represent an act of liberation from an intolerable family situation.²⁰ Some explanations for this type of crime can therefore be found in family breakdown, in the breakdown of moral values, violence and neglect.²¹ This has led some American courts to apply the notion of "battered child syndrome" as an extension of the doctrine of self-defense for parricides that have been subject to multiple and prolonged abuse.

There are various ways to prevent this type of crime, particularly through social intervention to support problematic families,³ and by evaluating possible risk factors.⁶ Health professionals, particularly those operating in mental health, can act pedagogically and preventively through educational interventions, teaching potential perpetrators how to deal with their conflicts^{3,7} and working with their respective families.²² Social reintegration also needs to be considered in the case of adolescents who were victims of abuse¹³ so as to avoid this fatal outcome which, once again, victimizes them. Another important measure is to limit access to firearms, especially in the case of adolescents.⁸

It is extremely important that this type of crime is better characterized, in order to enable the early detection of potential cases, thereby allowing for timely intervention. There is a clear need for further knowledge about this subject.^{2,3,7} In these cases it also would be important to include attempted parricide, as the dynamics of the crimes seem to be similar.¹ Thus, the general aim of this study is to further our knowledge about this phenomenon, thereby helping to promote the timely detection of risk cases so as to avoid fatalities. More specifically, it also aims to contribute to a better characterization of victims and perpetrators, as well as the type of practices involved, analyzing their consequences through the results of forensic autopsies and judicial decisions concerning cases of parricide.

2. Material and methods

A retrospective observational study was conducted, based on forensic autopsy reports from the North Services of the Portuguese National Institute of Legal Medicine and Forensic Sciences (INMLCF), performed between 2003 and 2011. The inclusion criteria were: (a) police or social information of the victim having been fatally assaulted by a son or daughter, step-child, or adoptive-child; (b) confirmation in the autopsy report of a violent death, inflicted by a third party. Seven cases were found and an application was made to the respective courts for a presence consultation of the judicial proceedings, including the sentence issued. This confirmed that all cases selected in first phase were indeed situations of parricide. Thus, no case was excluded in the second phase of selection. A datasheet was created accordingly to relevant literature.^{7,8,22} Given the size of the sample, only a descriptive analysis was possible.

3. Results and discussion

The 7 cases of parricide found correspond, at least, to 1.7% of the total number of homicides in the North of Portugal for the 9-year studied period. It is important to note that this number may be underestimated due to the fact that some of the autopsy reports did not contain any information about the alleged perpetrator, and these cases were therefore excluded. It is, in any case, a rare phenomenon,¹⁵ though this does not preclude the need for investigative studies in order to glean a better understanding of the situation and implement appropriate intervention and prevention strategies.²² Tables 1–5 present a description of these cases.

3.1. Characterization of the victim

The results show that the victims are predominantly male ($n = 6$) and aged between 44 and 80 with an average age of 59 (Table 1). These findings are in keeping with previous studies in which parricides are found to be more frequent than matricides¹⁹

Table 1
Characterization of the victim.

Case N°	Gender	Age at the time of crime	Relation to the perpetrator	Race	Background consumption
1	♂	44	Father	Caucasian	Drug Addiction
2	♂	72	Father	Caucasian	Alcoholism
3	♀	80	Mother	Caucasian	Unknown
4	♂	46	Father	Caucasian	Unknown
5	♂	54	Stepfather	Caucasian	Alcoholism
6	♂	46	Stepfather	Caucasian	Alcoholism
7	♂	72	Father	Caucasian	Unknown

Table 2
Characterization of the perpetrator.

Case n°	Gender	Age at the time of crime	Race	Lived with the victim	Psychopathological and behavioral background
1	♂	16	Caucasian	No	Unknown
2	♂	31	Caucasian	Yes	Schizophrenia
3	♀	56	Caucasian	No	Depression
4	♂	20	Caucasian	Yes	Depression and domestic violence
5	♂	21	Caucasian	Yes	Domestic violence
6	♂	18	Caucasian	Yes	Domestic violence
7	♂	42	Caucasian	No	Unknown

and the age of the victims ranges between 55 and 58 years⁷; fathers killed by their offspring are usually around 50 years old, while female victims are generally older. In accordance to other studies^{6,15} all the victims were Caucasian (Table 1), almost all the population in the region is in fact Caucasian. Nevertheless, this aspect warrants further consideration and will be covered in more detail in the section on the perpetrators. In this study, at least 4 out of the 7 victims had a history of substance abuse (1 of drug abuse and 3 of alcohol abuse) (Table 1) and were under the influence at the time of the attack (Table 4). For the other victims such background was unknown, though this does not rule out the possibility that this may have existed; for example, in Case 7, the post mortem toxicological tests revealed that the victim had a positive blood alcohol concentration (BAC) at the time of the attack (Tables 1 and 4). This data is supported by previous studies which indicate this type of consumption is a risk factor in parricide.¹³ As happened in other studies,¹⁵ we considered biological, adoptive and step-parents as valid inclusion criteria, which may have created some type of distortion because the nature of the relationship between these various “types” of offspring is not exactly the same⁷ and the dynamics involved in the crime could be different.²³ However, we only had 2 stepfathers (Cases 5 and 6) and no case involving an adoptive parent; of all cases, 5 involved biological parents (4 fathers and 1 mother) and 2 stepfathers (Table 1). This is supported by the literature on the subject, which considers biological parents to be the main victims of parricide.^{1,5} The cases relating to stepfathers (Cases 5 and 6) involved victims between 46 and 54 years of age and perpetrators between 18 and 21 years of age, respectively. This is in keeping with other results, which show that stepfathers tend to be younger than biological fathers and that their perpetrators are frequently adolescents.^{7,24}

Table 3
Characterization of the circumstances of the crime.

Case N°	Year	Place	Witnesses	Instrument used	Main reason	Behavior after crime
1	2003	Victim's house	Yes	Shotgun	Neglect	Gave assistance
2	2004	V & P house	No	Glass	Schizophrenia	Fled
3	2005	Victim's house	No	Shotgun	Money and depression	Resistance
4	2006	V & P house	No	Knife	Money and depression	Staged innocence
5	2009	V & P house	Yes	Glass	Protect the mother	Gave assistance
6	2009	V & P house	Yes	Knife	Protect the mother	Staged innocence
7	2011	Victim's house	Yes	Sickle	Money	Gave assistance

V & P – Victim and perpetrator's.

Table 4
Characterization of the forensic findings.

Case N°	Type of fatal injury	Location of fatal injury	Defensive injuries	Positive BAC	Presence of illicit drugs
1	Blunt penetrating	Thorax	No	No	Yes
2	Sharp penetrating	Neck	Yes	1.9 g/L	No
3	Blunt penetrating	Head	No	No	No
4	Sharp penetrating	Thorax and abdomen	Yes	No	No
5	Sharp penetrating	Neck	Yes	2.94 g/L	No
6	Sharp penetrating	Thorax	Yes	3.28 g/L	No
7	Sharp-blunt	Head	Yes	0.36 g/L	No

BAC – blood alcohol concentration.

3.2. Characterization of the perpetrator

Only one case of matricide was registered (Table 2). These issues relating to the gender of the perpetrator seem to be consensual in the literature and this predominance has sometimes been explained by the dominant social status of men in many societies.²

The age of the perpetrators varied between 16 and 56 years old with an average of 29 (Table 2). Almost all ($n = 6$) were over 17 years of age, but of these, 3 were very young (between 18 and 21) (Cases 4, 5 and 6). These results are also in accordance with the literature, which proves that parricide is more often committed by adults than by adolescents,² although is more common amongst young adults,¹¹ diminishing in frequency with age.⁷ Parricide typically involves perpetrators under 30 years of age, while matricide usually involves older perpetrators.^{3,7} This matches our results in which the oldest parricide was in fact a woman.

All the perpetrators were Caucasian (Table 2), as were the victims. Although the population in this area is predominantly Caucasian, as mentioned earlier, the foreign literature draws similar conclusions⁶ which may be justified by cultural reasons; for example, Negro populations traditionally see mothers as role models and so these are less frequent victims; as for fathers, especially in socioeconomic circles with few cultural resources, as they often do not live with the family, there is less risk of homicide.⁷

The majority of the perpetrators lived with the victim ($n = 4$). Some studies note that living with the perpetrator represents a risk factor for homicide for both parents, especially when it is committed by a young person.⁴

Psychopathology was found in 3 cases (1 case of schizophrenia in a 31-year-old perpetrator [Case 2] and 2 cases of depression, 1 in a 56-year-old perpetrator [Case 3] and 1 in a 20-year-old [Case 4]), and there was a history of domestic violence in 3 (perpetrators aged between 18 and 21 years old [Cases 4, 5 and 6]) (Table 2). These results match those found in previous studies,⁴ in which the most common history were psychiatric illness in the case of adult

Table 5
Characterization of the judicial outcome.

Case n°	Phase of judicial proceedings	Date of decision	Judicial decision	Sentence
1	Trial (1st instance)	20/04/2006	Involuntary manslaughter	7 months in prison
2	Investigation closed	29/10/2004	Acquitted	–
3	Trial (1st instance)	09/11/2006	Murder	12 years in prison
4	Appeal (2nd instance)	09/01/2008	Murder	17 years in prison
5	Trial (1st instance)	04/11/2011	Manslaughter	5 years in prison
6	Trial (1st instance)	13/10/2010	Manslaughter	5.5 years in prison
7	Appeal (2nd instance)	13/03/2013	Murder (and attempted murder)	23 years in prison

parricides and involved domestic violence with younger perpetrators. Mental illness is, in fact, one of the factors most frequently associated to parricide. Baxter and colleagues,²⁵ in a study of 98 parricides, found that schizophrenia was the most common diagnosis. In another study, Millaud et al.¹⁴ observed a relation between mental illness and parricide in 6 individuals who attempted to commit this crime and in a further 6 who effectively did so ($n = 12$); 40% of the perpetrators were diagnosed with paranoid schizophrenia or alcohol/drug abuse; these authors also found that 75% of the cases had family histories of mental illness and that half the sample admitted having a history of personal and family violence, which was a contributing factor; finally, they state that the parricides with mental illness generally seek, or are receiving, psychiatric help in the weeks leading up to the crime, and that their psychotic symptoms may be aggravated by alcohol or drug consumption, and ceasing to take medication is a common risk factor in these type of perpetrators.

3.3. Characterization of the circumstances of the crime

With the exception of 2009, the distribution was 1 case per annum (Table 3). All the fatal assaults occurred at home; in 4 cases the victim and the perpetrator lived together and in the remaining 3 the crime occurred in the victim's home (Table 3), a detail confirmed by other studies.²⁵

Unlike some studies, which claim that most parricides occur in the absence of witnesses,³ this only happened in 3 situations in our study. In the remaining 4, there were witnesses (Table 3): 1 was an accident (Case 1), in which some family members were present; in 2 cases, the injury occurred while the son was defending his mother, who was being assaulted by her partner (Cases 5 and 6); and in 1 case, the victim's partner and the wife of the perpetrator were also present (Case 7).

Again contrary to the literature, which claims that firearms (particularly handguns) followed by knives are the most common instruments used in this type of crime,^{8,15} only 2 perpetrators used firearms (shotguns) in our sample, while the rest used sharp instruments (knives in 2 cases, fragments of glass in another 2 and a sickle in 1) (Table 3). It has been argued that the instruments vary with the gender of the victim: (in decreasing order) handguns, knives and shotguns for patricides; knives, handguns, blunt instruments, rifles and shotguns for matricides.^{3,8,26} We cannot conclude anything in this respect as there was only one matricide in our sample and in this a shotgun was used (Table 3). The type of instrument used is also closely related to its availability within various communities.^{2,17} Perpetrators in the USA tend to use firearms more often than in other countries, where sharp instruments are more common.⁵ Furthermore, some authors, going against the difference-in-strength theory, argue that the context in which the crime was committed should be taken into consideration, as most parricides are not premeditated^{2,3} and, therefore, the instrument used is the most accessible one.²⁶

All the cases in our study followed the same pattern: one perpetrator and one fatal victim, in accordance with the literature^{6,23} (i.e. there were no other fatal victims).

With regard to motivation for the crime, it may differ according the age group of the perpetrator, where some risk factors are identified (abuse, psychiatric problems and financial issue); however, there are also other risk factors which should be studied and analyzed so as to better understand the roots of this type of behavior^{3,13,19,27}.

a) Cases involving adolescents or very young adults are mostly related to contexts of abuse,¹³ in which parricide constitutes a

way of putting an end to the abuse (especially physical or sexual) to which they have been subjected for a long time^{2,11} and to protect themselves or other family members.^{24,27,46} One possible explanation for abuse being a cause of parricide among adolescents, but not among adults, is that adults, in this type of situation, are more able to abandon the household and separate.³ In this study, in 1 of the 4 cases that involved perpetrators aged between 16 and 21, a shotgun were accidentally fired (involuntary manslaughter) (Case 1); this also happened in 3% of the homicides analyzed in another study.²⁶ In the other 3, there was a background of domestic violence: 2 involved violence by the stepfather towards the mother (physical abuse), resulting in an attempt to protect the mother (Cases 5 and 6), while in the other, there was persistent physical and psychological abuse by the father, though this may have not been the only reason of the crime as there were also financial problems and a condition of unmedicated depression (Case 4; Table 3). Accordingly to Heide,²⁰ it is possible to identify a set of characteristics in juvenile parricides: (a) a context of parental violence; (b) exposure to domestic violence; (c) an inability to obtain outside help (from local authorities, family members, friends) or to escape the family situation (e.g. running away from home, suicide thoughts and attempts); (d) social isolation, and membership of violent sub-cultures. With the exception of a few cases, these young people usually have a minimal, non-existent or unknown criminal history. Easy access to instruments and other lethal objects, as well as a family context marked drug-addiction and chronic alcoholism are also referred to as critical factors that may lead to parricide. However, parricide may also result from the violent and anti-social behavior of the young people in the family. These individuals generally have behavioral problems and violent personalities, and persistently display various types of anti-social conduct which becomes a regular pattern of behavior;

b) Cases involving adults, tend to be related to psychiatric problems.⁶ In this study, of the 3 remaining cases that involved older perpetrators (over 30), 2 had psychiatric problems. One was an individual with schizophrenia who committed the crime while in a decompensation phase and had stopped taking his psychotropic medication (Case 2; Table 3). This is a possible explanation for these types of cases,^{14,19} and indeed is considered by some to be the main cause of parricide amongst adults.^{1,3,4} In the other case (Case 3) involving a woman who killed her mother, there was a history of family conflict related to financial issues, as well as an unmedicated case of depression; hence, a combination of these factors will have been responsible for the event (Table 3). As regards psychiatric problems, in addition to schizophrenia, there are also less frequent reports of depression as a motive for parricide¹² and various authors argue that chronic conflicts within the family can lead to an escalation in violence culminating in fatal injury.¹¹ The third case involving older perpetrators seems to have been related only to a family argument over financial issues (Case 7; Table 3). In this case, the victim fired two or three rifle shots, presumably without intending to hit his son, which led to the son fatally wounding the father and seriously wounding his father's partner with a sickle. In fact, a number of studies give financial issues as a major motive for parricide.^{11,16,22}

As for the perpetrators' behavior after committing the crime, only 1 fled (Case 2). Of the others, 1 remained at the crime site and resisted the authorities (Case 3, the matricide), 3 tried to assist the victim (Cases 1, 5 and 7) and the other 2 tried to stage their innocence (Cases 4 and 6; Table 3). On this subject, the scanty information available in the literature is not unanimous: some studies

state that perpetrators do not try flee,³ while others argue the opposite.¹⁶

In this study, no perpetrator attempted suicide after the crime was committed. This is in line with the literature, which claims that only a small percentage commit or try to commit suicide after the crime,^{9,11,14} unlike cases of homicide of women in a context of an intimate relationship.^{28,29}

The judicial proceedings which were consulted did not contain any information on whether the perpetrators were under the influence of alcohol or other drugs at the time of the crime.

3.4. Characterization of the forensic findings

Mortal trauma, as consequence of penetrating wounds was registered in 6 cases (Table 4). There may be a connection between the anatomical regions affected and the type of instrument used; that is to say, the instrument is adapted to the region to provoke lethal injuries, revealing knowledge of the location of the target organs.¹⁷ In fact, penetrating trauma was more often observed around the thorax and abdomen, while blunt objects were used predominantly on the head. If we analyze the location of fatal injuries, more than half were on the head or neck. This is in keeping with the literature which states that the head is the most common region for fatal injuries.¹⁷

Defensive injuries were evidenced in 5 cases, all located on the arms and all related to cases where sharp instruments were used (Table 4). Similarly, previous studies¹⁸ observed that defensive injuries involved mainly sharp instruments, and the injuries are predominantly on the arms in order to protect the vital regions, namely the head and the thorax. Regarding firearms, given the nature of the instrument and possible distance, such injuries are understandably rare or non-existent, though this still depends on the circumstances of the assault.

In 4 of the cases, the victim had a positive BAC (Table 4). Only 1 case, in which the victim was a drug addict, revealed drug consumption (Case 1–0.05 mg/L of morphine, 0.47 mg/L of benzo-lecgonine and vestiges of methylecgonine).

3.5. Characterization of the judicial outcome

In the cases concerning young adults in which the motive was a history of abuse (Cases 5 and 6), the perpetrators were accused of manslaughter and sentenced to around 5 years in prison (Table 5). As stated before¹⁶ self-defense, was not accepted, and acquittal on these grounds is not common. However, judicial systems are increasingly declaring such cases to be involuntary manslaughter.³

Of the remaining cases, the perpetrator in the one related to schizophrenic psychosis (Case 2) was found no imputable and was acquitted (Table 5).

In the cases which involved financial issues (Cases 3, 4 and 7), the perpetrators were found guilty of murder: the 2 cases connected to depression were sentenced to 12 and 17 years in prison, while the other got 23 years (18 years for murder and 12 years for attempted murder; Table 5). In the case where the death was an alleged accident (Case 1), the 16-year-old perpetrator was sentenced to 7 months in prison for involuntary homicide (Table 5).

There is little literature information on judicial sentences in the case of adults. The majority seem to have been hospitalized in psychiatric units, which suggests they were found no imputable.³ However, in the cases where psychiatric problems did not exist the majority were sentenced to prison.¹⁶

4. Conclusions

Results highlight the following:

- Cases of parricide are extremely rare (1.7% of all alleged homicides), which does not mean that this problem is less important, since serious social and legal issues are involved, and indeed, the rate may be underestimated;
- The victims were mostly male, and biological parents, with an average age of 59 and a history of substance abuse (especially alcohol);
- The perpetrators were mostly male, with an average age of 29; more than half lived with the victim and had a history of mental illness (schizophrenia or depression) and/or domestic violence (mostly victims of physical abuse);
- The pattern was that of one perpetrator/one victim, predominantly a son committing parricide; double parricides were not found, nor were there other fatal victims (including no cases of perpetrators' suicide);
- Most of the assaults happened at the house where both the perpetrator and the victim lived and in the presence of witnesses; most perpetrators remained at the scene after the crime;
- The main alleged reasons admitted for the assault were: unmedicated psychiatric illness; financial issues (especially in older perpetrators); domestic violence (especially in younger perpetrators). The only case involving a minor was an accident, classified as involuntary manslaughter;
- Over half the aggressions were committed using sharp instruments;
- Fatal injuries occurred mostly to the head and the neck, and most victims had defensive injuries on the arms;
- With the exception of the case of schizophrenia in which the perpetrator was found no imputable and therefore acquitted, the remaining perpetrators were found guilty of murder (cases associated to domestic violence) or involuntary manslaughter.

This study is limited by the fact of its retrospective, which restricts the available information, and because it involves a small number of cases (which was expected, as all research in this issue has been based on small samples). However, this low occurrence rate may be due to unreported or unidentified cases,^{5,24} though it may also represent the reality, with beliefs and cultural factors playing a role.⁵ In fact, there are many social questions that could influence these practices. Hence, further studies are needed to clarify this phenomenon.

Ethical approval

It was ensured that personal information concerning victims and perpetrators was protected, confidential and anonym in accordance with ethical rules.

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Conflict of interest

None.

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